

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1-4. (Canceled)

5. (Currently amended) A wireless communication system comprising:
transmitter circuitry comprising circuitry for transmitting a plurality of frames to a receiver
in a first cell;

wherein each of the plurality of frames comprises a bit group;

wherein the transmitter circuitry further comprises circuitry for inserting a bit sequence into
the bit group;

wherein the bit sequence is selected from a plurality of bit sequences such that successive
transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit
sequences;

wherein each of the plurality of frames comprises a midamble;

wherein the midamble comprises the bit group;

wherein the plurality of bit sequences consists of two bit sequences;

wherein each of the plurality of frames has a corresponding system frame number;

wherein the bit sequence is selected from the plurality of bit sequences in response to the
system frame number; and

~~The system of claim 4~~ wherein the bit sequence is selected from the plurality of bit sequences in response to whether the system frame number is odd or even.

6-9. (Canceled)

10. (Currently amended) A wireless communication system, comprising:
transmitter circuitry comprising circuitry for transmitting a plurality of frames to a receiver
in a first cell;

wherein each of the plurality of frames comprises a bit group;

wherein the transmitter circuitry further comprises circuitry for inserting a bit sequence into
the bit group;

wherein the bit sequence is selected from a plurality of bit sequences such that successive
transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit
sequences;

wherein the plurality of bit sequences consists of two bit sequences;

wherein each of the plurality of frames has a corresponding system frame number;

wherein the bit sequence is selected from the plurality of bit sequences in response to the
system frame number; and

~~The system of claim 9~~ wherein the bit sequence is selected from the plurality of bit
sequences in response to whether the system frame number is odd or even.

11. (Currently amended) The system of claim 10:

wherein each of the plurality of frames comprises a midamble;

wherein the midamble comprises the bit group;

wherein the plurality of bit sequences consists of two bit sequences; and

wherein the transmitter circuitry comprises CDMA transmitter circuitry.

12. (Currently amended) The system of claim 10:

wherein each of the plurality of frames has a corresponding system frame number; and

wherein each bit sequence is selected from the plurality of bit sequences in response to the
system frame number.

13. (Currently amended) The system of claim 10 wherein the transmitter circuitry comprises CDMA transmitter circuitry.

14. (Currently amended) The system of claim 10 wherein the transmitter circuitry comprises TDMA transmitter circuitry.

15. (Currently amended) The system of claim 10 and further comprising the receiver, wherein the receiver comprises:

circuitry for receiving the plurality of frames; and

circuitry for identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames.

16. (Original) The system of claim 15 wherein the circuitry for identifying paths in the plurality of frames as actual paths identifies paths as actual paths in response to paths in the plurality of frames have a like chip position.

17-24. (Canceled)

25. (Currently amended) A method of operating a wireless communication system, comprising the steps of:

transmitting a plurality of frames by transmitter circuitry to a receiver in a first cell;

wherein each of the plurality of frames comprises a bit group;

wherein the bit group uniquely distinguishes the first cell from a second cell adjacent the first cell;

wherein the transmitting step comprises inserting a bit sequence into the bit group;

wherein the bit sequence is selected from a plurality of bit sequences such that successive transmissions by the transmitter circuitry comprise a cycle of successive ones of the plurality of bit sequences;

wherein each of the plurality of frames comprises a midamble;

wherein the midamble comprises the bit group;

wherein the plurality of bit sequences consists of two bit sequences;

wherein each of the plurality of frames has a corresponding system frame number;

wherein the bit sequence is selected from the plurality of bit sequences in response to the system frame number; and

~~The method of claim 24~~ wherein the bit sequence is selected from the plurality of bit sequences in response to whether the system frame number is odd or even.

26-32. (Canceled)

33. (Currently amended) The method of claim ~~25~~¹ wherein the transmitter circuitry comprises CDMA transmitter circuitry.

34. (Currently amended) The method of claim ~~25~~¹ wherein the transmitter circuitry comprises TDMA transmitter circuitry.

35. (Currently amended) The method of claim ~~25~~¹ and further comprising the steps of:
receiving the plurality of frames at a receiver station in the first cell; and
identifying paths in the plurality of frames as actual paths in response to a comparison of path positions resulting from successive correlation measures between successive ones of the plurality of bit sequences in the cycle and the bit group in each of the plurality of frames.

36. (Original) The method of claim 35 and further comprising applying channel estimates corresponding to the actual paths to a maximal ratio combiner circuit.

37-38. (Canceled)

39. (Previously amended) A method of producing a sequence of frames, comprising the steps of:

selecting a sequence of K different bit sequences that uniquely distinguish a first cell from a second cell adjacent the first cell;

inserting the sequence of K different bit sequences into a group of K respective sequential frames of the sequence of frames; and

repeating the step of inserting at each successive group of K sequential frames of the sequence of frames.

40. (Previously added) A method as in claim 39, wherein each frame of the sequence of frames comprises a data packet.

41. (Previously added) A method as in claim 39, wherein each frame of the sequence of frames comprises a voice packet.

42. (Previously added) A method as in claim 39, wherein each frame of the sequence of frames comprises a midamble and wherein each midamble comprises one of the K different bit sequences.

43. (Previously added) A method as in claim 39, wherein K is two.

44. (Previously added) A method as in claim 39, wherein K is four.

45. (Previously added) A method as in claim 39, wherein each frame of the sequence of frames has a corresponding system frame number and wherein each of the K different the bit sequences is selected in response to the system frame number.

46. (Previously added) A method as in claim 39, wherein each frame of the sequence of frames is a CDMA frame.

47. (Previously added) A method as in claim 39, wherein each frame of the sequence of frames is a TDMA frame.

48. (Previously amended) A method of receiving a sequence of frames, comprising the steps of:

selecting a sequence of K different bit sequences that uniquely distinguish a first cell from a second cell adjacent the first cell;

identifying the sequence of K different bit sequences in a group of K respective sequential frames of the sequence of frames; and

repeating the step of identifying at each successive group of K sequential frames of the sequence of frames.

49. (Previously added) A method as in claim 48, wherein each frame of the sequence of frames comprises a data packet.

50. (Previously added) A method as in claim 48, wherein each frame of the sequence of frames comprises a voice packet.

51. (Previously added) A method as in claim 48, wherein each frame of the sequence of frames comprises a midamble and wherein each midamble comprises one of the K different bit sequences.

52. (Previously added) A method as in claim 48, wherein K is two.
53. (Previously added) A method as in claim 48, wherein K is four.
54. (Previously added) A method as in claim 48, wherein each frame of the sequence of frames has a corresponding system frame number and wherein each of the K different the bit sequences is selected in response to the system frame number.
55. (Previously added) A method as in claim 48, wherein each frame of the sequence of frames is a CDMA frame.
56. (Previously added) A method as in claim 48, wherein each frame of the sequence of frames is a TDMA frame.